

CLAIMS

1. Functional insert (3), typically made of plastic, for the neck (4) of a receptacle, typically a glass or plastic bottle, comprising a body (30) that will be inserted in the said neck, the said body (30) supporting at least one flexible rib (31) on its outside surface designed to form a sealed junction with the said neck (4) when the said functional insert is inserted into the said neck, and a functional element (6, 7), characterised in that:

a) the said functional insert (3) comprises an adhesive (5) supported on the said rib (31), typically on its upper surface, and / or on the said outer surface of the said body, the said adhesive (5) being chosen to bond to the said neck (4),

b) the said adhesive (5) is a typically permanent adhesive chosen with a consistency or viscosity such that it will only creep under a stress that compresses the said adhesive between the said rib (31) and the said body (30) when, with the said functional insert being inserted into the said neck, the said rib retracts and its contents or quantity are chosen such that the said adhesive (5) comes into contact with the said neck so as to solidarise the said body to the said neck at an adhesive contact area and to prevent axial displacement of the said functional insert (3) in the upwards direction under axial stress.

2. Insert according to claim 1, in which the said typically cylindrical body (30) comprises at least two ribs (31), the said adhesive (5) typically being placed between the two ribs, or on each rib.

3. Insert according to either claim 1 or 2, in which the said adhesive (5) forms a ring, so as to form a circular contact area.

4. Insert according to either claim 1 or 2, in which  
5 the said adhesive (5) forms one or several discontinuous deposits, so as to form a discontinuous or continuous contact area depending on the number of the said discontinuous deposits, typically between 1 and 4.

5. Insert as claimed in any of claims 1 to 4, in  
10 which the said adhesive (5) is a permanent "hot-melt" type adhesive.

6. Insert as claimed in any of claims 1 to 4, in which the said adhesive (5) can be activated or cross-linked, typically by the input of energy, once the said  
15 insert has been placed in the said neck.

7. Insert according to claim 6, in which the adhesive includes a setting agent or activator.

8. Insert as claimed in any of claims 1 to 4, in which the said adhesive (5) is typically in the form of  
20 micro-balls that release the said adhesive when the said functional insert is placed in the said neck, or is an adhesive that can be activated when the said functional insert is placed in the said neck.

9. Insert as claimed in any of claims 1 to 8, in  
25 which the said adhesive (5) is selected to typically bond to glass, and in which the contact area of the said adhesive contact area is typically between 20 and

500 mm<sup>2</sup>, such that the said insert remains fixed in the said neck under an axial force equal to at least 0.5 daN.

10. Insert as claimed in any of claims 1 to 9 in which the said functional element forms a pouring  
5 spout (6).

11. Insert as claimed in any of claims 1 to 10 in which the said functional element forms a non-filling device (7) or an anti-fraud device.

12. Insert as claimed in any of claims 1 to 11  
10 comprising a reversible assembly means (32) designed to temporarily fix the said functional insert (3) to a cap (1), typically a closing cap, or to a sealing insert (2) of the said cap, the said axial stress corresponding to at least the stress necessary to separate the said cap  
15 (1) or the said sealing insert (2) from the said functional insert (3) when the said cap is opened.

13. Cap (1), typically a closing cap, comprising a shell (11) provided with a skirt (110) and a sealing insert (2), possibly threaded, fixed to the said shell  
20 (11), and a functional insert (3) according to any of claims 1 to 12, the said sealing insert (2) or the said shell (11) and the said functional insert (3) comprising reversible fixing means (20, 32), typically by reversible click fitting.

25 14. Closing cap according to claim 13 in which the said shell (11) is metallic, typically made of aluminium, or is made of plastic.

15. Method for manufacturing a cap according to any of claims 13 to 14, in which:

a) the said functional insert (3), the said adhesive (5) and the said closing cap (1) typically fitted with the said sealing insert (2), are supplied,

b) the said adhesive (5) is deposited or applied  
5 on the said functional insert (3),

c) the said functional insert (3) is then fixed to the said sealing insert (2) or to the said shell (11), such that the said adhesive (5) is protected from any external contact by the skirt (110) of the said shell,  
10 and thus the said cap (1) may be manipulated without any risk of damage.

16. Use of an insert as claimed in any of claims 1 to 12 and a cap (1) as claimed in either of claims 13 to 14 to fix the said functional element (6, 7) to any type  
15 of neck (4), either with a prismatic profile, or an "A" or a "V" profile.